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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,031	10/16/2003	Marlin Viss	10030984-1	9141

7590 04/25/2005

AGILENT TECHNOLOGIES, INC.
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EXAMINER	
BUI, BRYAN	
ART UNIT	**PAPER NUMBER**
2863	

DATE MAILED: 04/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

EK

Office Action Summary	Application No.	Applicant(s)	
	10/687,031	VISS, MARLIN	
	Examiner	Art Unit	
	Bryan Bui	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-7 and 9-20* is/are rejected.

7)☒ Claim(s) *4 and 8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *32105*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 5-7, and 9-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Jungerman et al (US 20040146097).

With respect to claims 1, 9, and 17, Jungerman et al teach a method and system characterizing jitter of repetitive patterns (title and abstract) comprising: establishing an array of frequencies (paragraph 0017); acquiring a set of pseudo-randomly timed samples at a first designated position (figure 3A) on the repetitive signal and assigning a first set of jitter values to the set of pseudo-randomly timed samples (figure 3A and paragraph 0011); selecting a frequency from the array based on a correlation of the assigned jitter values in the first set with the frequencies in the array, wherein the selected frequency has the highest correlation (peak amplitude in figure 3A and paragraphs 0006, 0021).

With respect to claim 2 wherein establishing the array of frequencies includes acquiring periodically timed samples at a second designated position and assigning a second set of jitter values to the periodically timed samples ((A2-A3 in periodic timed

sample at 1/Rs in figure 3A), and transforming the second set of jitter values to a corresponding spectrum (figures 3B and 4), wherein the array of frequencies includes the frequency of an identified signal peak in the spectrum and frequencies at integer multiples of the rate at which the periodically timed samples are acquired (figure 4).

With respect to claim 3, wherein assigning the second set of jitter values to the periodically timed samples includes establishing a mapping between amplitude and time on an amplitude transition that includes the second designated position (A2-A3 in periodic timed sample at 1/Rs in figure 3A and paragraph 0017).

4. oooooThe method of claim 3 wherein the mapping includes one of a linear function relating amplitude and time, a polynomial relating amplitude and time, and a look-up table relating amplitude and time.

With respect to claim 5, wherein assigning the first set of jitter values to the set of pseudo-randomly timed samples comprises determining the amplitudes of the pseudo-randomly timed samples in the set (paragraph 0016), and wherein selecting a frequency from the array based on a correlation of the assigned jitter values in the first set with the frequencies in the array comprises selecting a frequency from the array based on a correlation of the determined amplitudes with the frequencies in the array (figure 3A, pargraphs 0006, 0016).

With respect to claim 6, wherein the set of pseudo-randomly timed samples is acquired at pseudo-random integer multiples of a ratio of a pattern length of the repetitive signal to a bit rate of the repetitive signal (figure 3A).

With respect to claim 7, wherein the set of pseudo-randomly timed samples is acquired at pseudo-random integer multiples of a ratio of a pattern length (1/Rr) of the repetitive signal to a bit rate of the repetitive signal (figure 3A).

With respect to claim 9, Jungerman et al teachmethod for characterizing jitter of a repetitive waveform, comprising: identifying a frequency of a signal peak in a spectrum of the repetitive signal resulting from periodic sampling of the repetitive signal (paragraphs 0017-0019); establishing an array of frequencies based on the signal peak (paragarph 0017); acquiring a set of pseudo-randomly timed samples at a first position (figure 3A) on an amplitude transition of the repetitive signal (figure 3A, paragraph 0011); assigning a first set of jitter values to each of the pseudo-randomly timed samples in the acquired set and selecting a frequency from the array of frequencies based on a correlation of the assigned jitter values in the first set with the frequencies in the array (figure 3A and paragraphs 0006, 0016, 0021).

With respect to claim 10, Jungerman et al teach wherein the array of frequencies includes the identified frequency of the signal peak and integer multiples of the rate (number of rate) of the periodic sampling of the repetitive signal (figure 3A).

With respect to claim 11, wherein identifying a frequency of the signal peak in a spectrum of the repetitive signal resulting from periodic sampling of the repetitive signal includes acquiring periodically timed samples at a second position, assigning a second set of jitter values corresponding to the periodically timed samples, and transforming the jitter values in the second set to a corresponding spectrum (figures 3A-3B and 4).

With respect to claim 12, wherein identifying a frequency of the signal peak in a

spectrum of the repetitive signal resulting from periodic sampling of the repetitive signal includes acquiring periodically timed samples at the second position, assigning a second set of jitter values corresponding to the periodically timed samples, and transforming the jitter values in the second set to a corresponding spectrum (figures 3A-3B and 4)

With respect to claim 13, wherein assigning the second set of jitter values to the pseudo-randomly timed samples in the acquired set comprises determining the amplitudes of the pseudo-randomly timed samples in the acquired set, and wherein selecting a frequency from the array based on the correlation of the assigned jitter values in the first set with the frequencies in the array comprises selecting a frequency from the array based on a correlation of the determined amplitudes with the frequencies in the array (figure 3A, pargraphs 0006, 0016).

With respect to claim 14, wherein the set of pseudo-randomly timed samples is acquired at pseudo-random integer multiples of a ratio number of rate (1/Rs)of a pattern length of the repetitive signal to a bit rate of the repetitive signal (figure 3A).

with respect to claim 15, wherein the set of pseudo-randomly timed samples is acquired at pseudo-random integer multiples of a ratio of a pattern length (1/Rr)of the repetitive signal to a bit rate of the repetitive signal (figure 3A).

With respect to claim 16, wherein the set of pseudo-randomly timed samples is acquired at pseudo-random integer multiples of a ratio of a pattern length (1/ Rr) of the repetitive signal to a bit rate of the repetitive signal (figure 3A).

With respect to claim 17, Jungerman et al teach a system corresponds to method as set forth in the rejection above for characterizing jitter of a repetitive waveform, comprising: a sampler acquiring a set of pseudo-randomly timed samples at a designated position on a designated amplitude transition of the repetitive signal; a processor coupled to the sampler, assigning a jitter value to each of the samples in the acquired set and selecting a frequency from an array of frequencies based on a correlation of the assigned jitter values with the frequencies in the array (pargarphs 0011-0012, 0016).

With respect to claim 18, wherein the array of frequencies is established by acquiring periodically timed samples at the designated position, assigning corresponding jitter values to the periodically timed samples, and transforming the jitter values assigned from the periodically timed samples to a corresponding spectrum, wherein the array of frequencies includes the frequency of an identified signal peak in the spectrum and frequencies at integer multiples of the rate (1/Rs) at which the periodically timed samples are acquired (figures 3A-3B and 4).

With respect to claim 19, Jungerman et al teach wherein assigning a jitter value to each of the pseudo-randomly timed samples in the acquired set comprises determining the amplitudes of each of the pseudo-randomly timed samples in the acquired set, and wherein selecting a frequency from the array based on the correlation of the assigned jitter values from the pseudo-randomly timed samples with the frequencies in the array comprises selecting a frequency from the array based on a correlation of the determined amplitudes with the frequencies in the array (figure 3A, paragraphs 0006, 0016).

With respect to claim 20, wherein the set of pseudo-randomly timed samples is acquired at pseudo-random integer multiples of a ratio of a pattern length (1/Rr) of the repetitive signal to a bit rate of the repetitive signal (figure 3A).

Allowable Subject Matter

3. Claims 4 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan Bui whose telephone number is 571-272-2271. The examiner can normally be reached on M-Th from 7am-4pm, and Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BB

4/21/2005

BRYAN BUI
PRIMARY EXAMINER